

NOTES

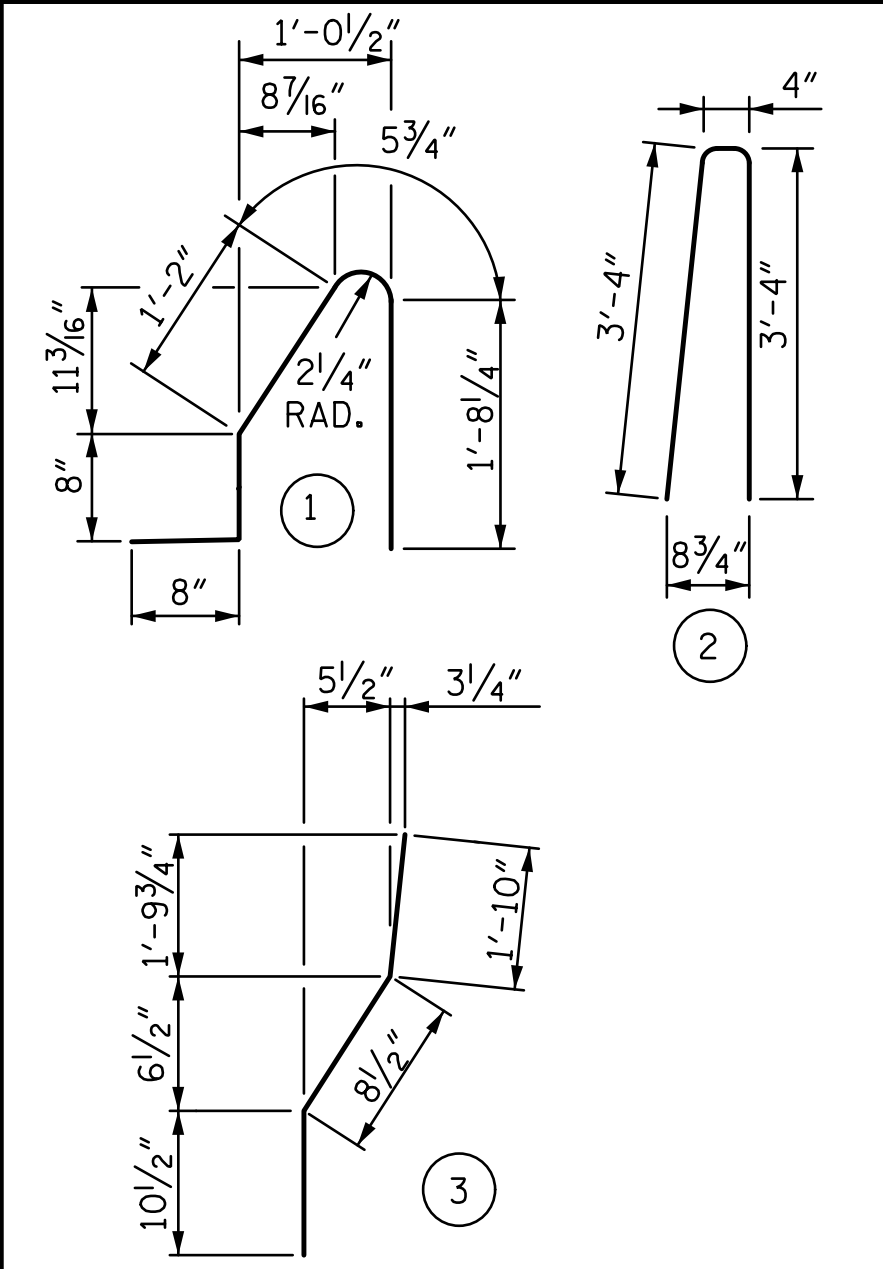
THE BARRIER RAIL IN EACH SPAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF BARRIER RAIL SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

#5S1 AND #5S2 BARS MAY BE SHIFTED SLIGHTLY IN ORDER TO MAINTAIN A 2" MINIMUM CLEARANCE TO THE 1/2" EXPANSION JOINT MATERIAL IN RAIL.

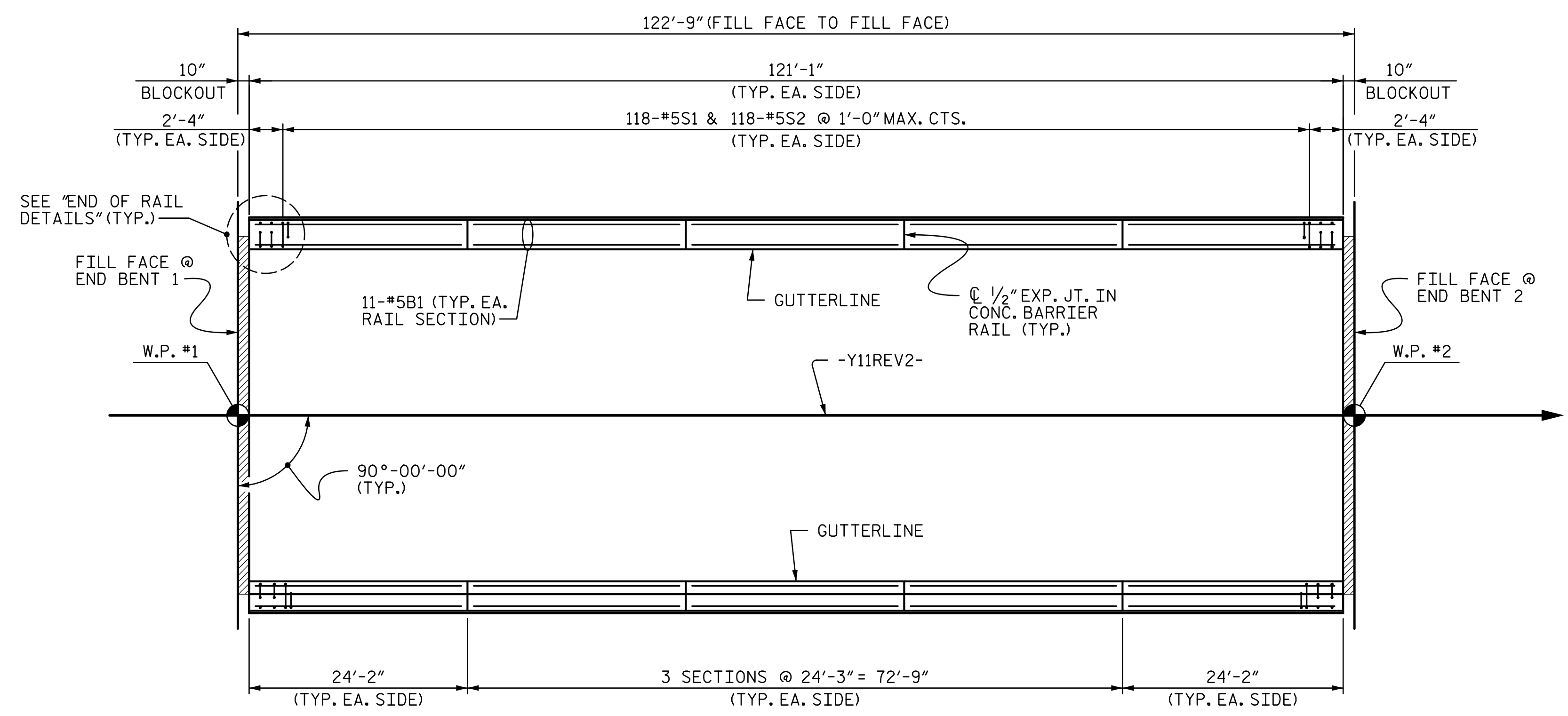
BAR TYPES



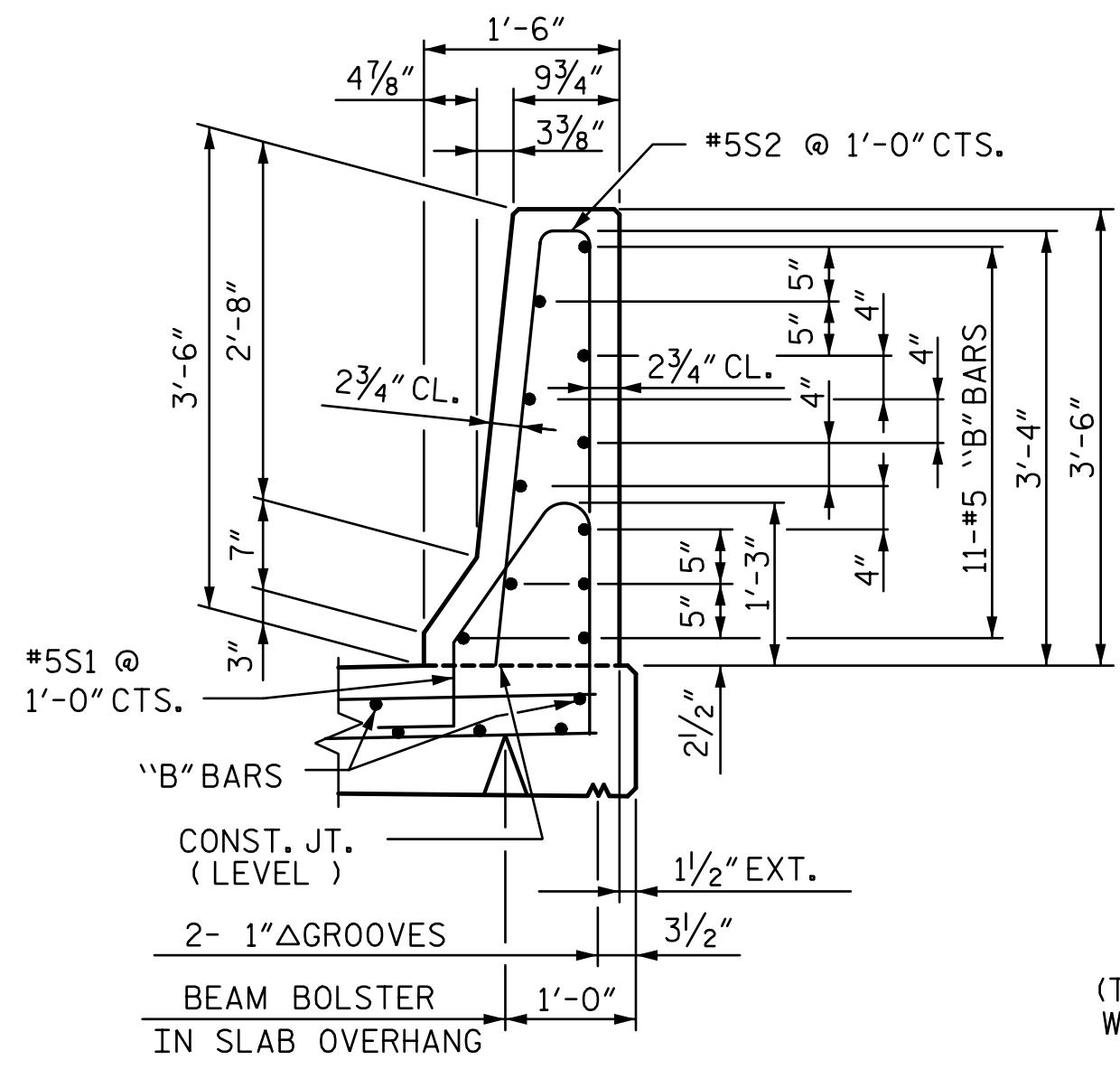
ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

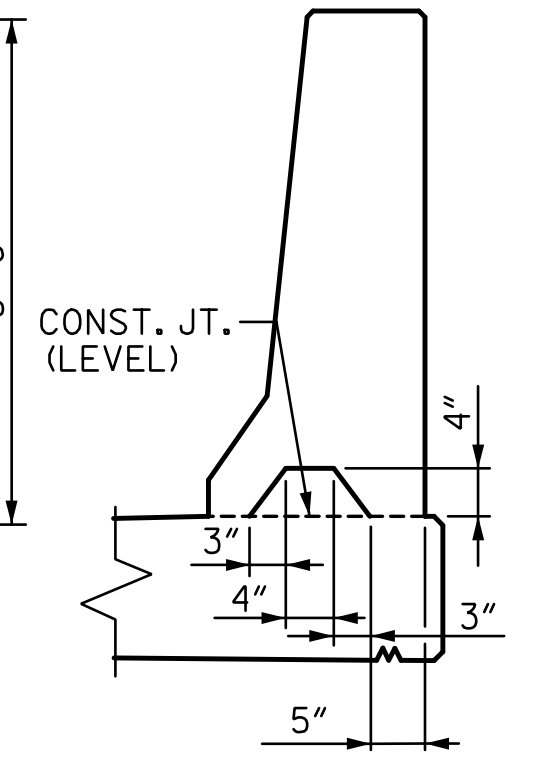
FOR CONCRETE BARRIER RAIL ONLY						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
* B1	110	#5	STR	23'-9"	2725	
* S1	236	#5	1	4'-8"	1149	
* S2	236	#5	2	7'-0"	1723	
* S5	8	#5	3	3'-5"	29	
* S6	8	#5	STR	3'-3"	27	
* EPOXY COATED REINFORCING STEEL					5653 LBS.	
CLASS AA CONCRETE					32.4 CU. YDS.	
CONCRETE BARRIER RAIL					242.2 LTN. FT.	



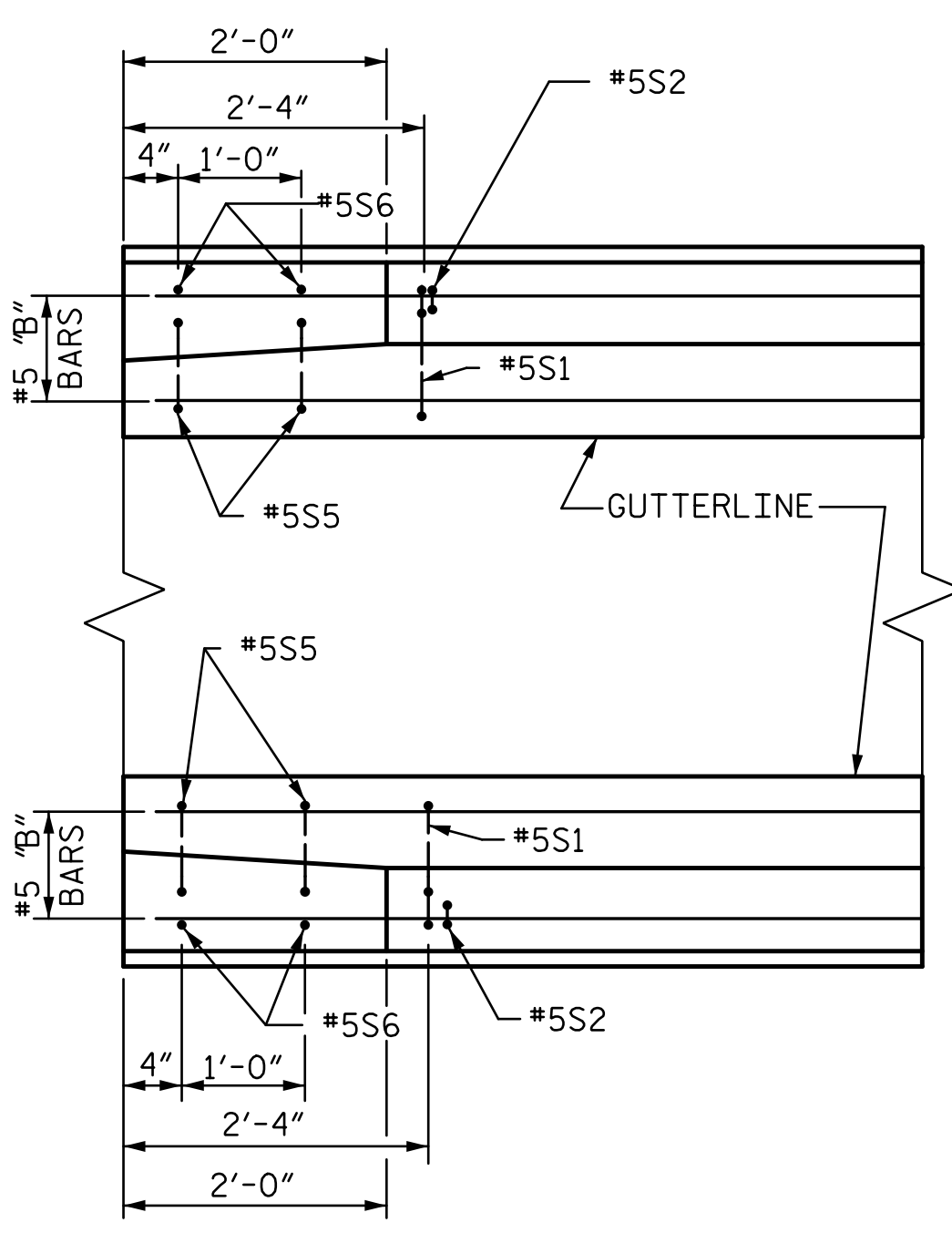
PLAN OF BARRIER RAIL



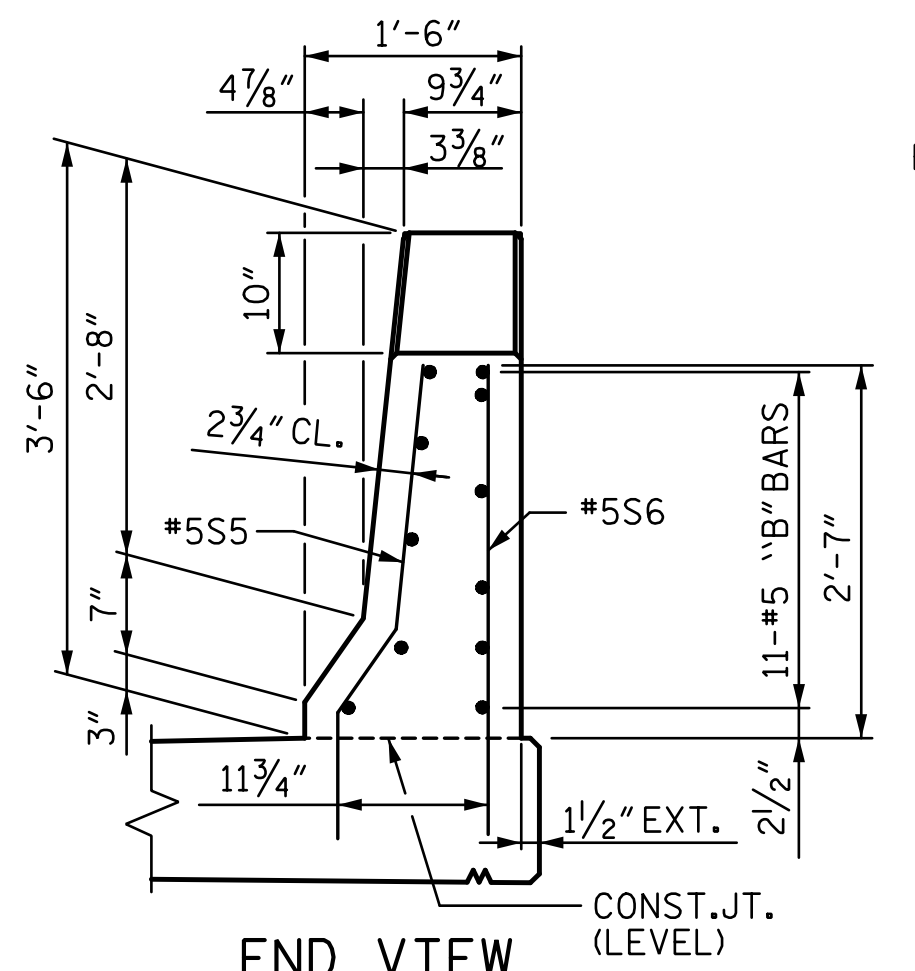
SECTION THRU RAIL



SECTION S-S
AT DAM IN OPEN JOINT
(THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED)

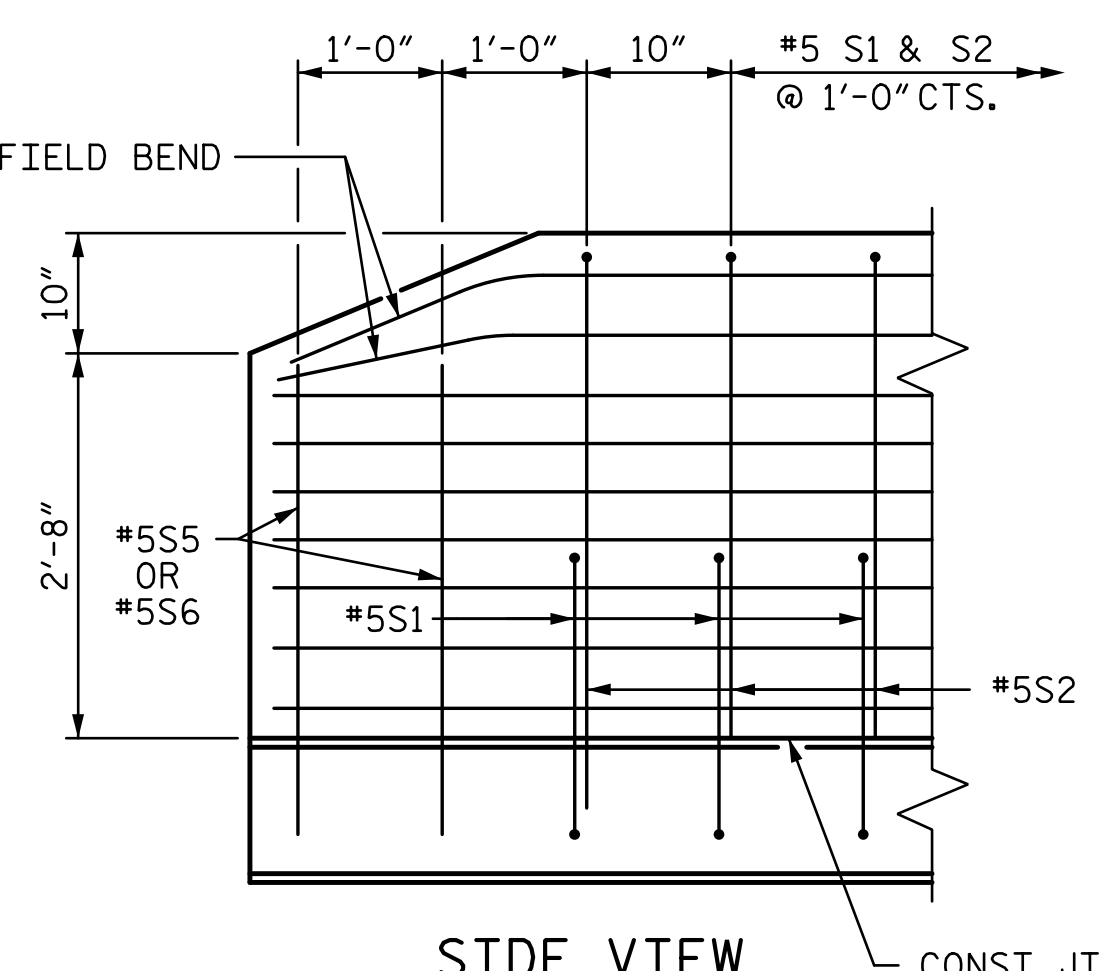


PLAN



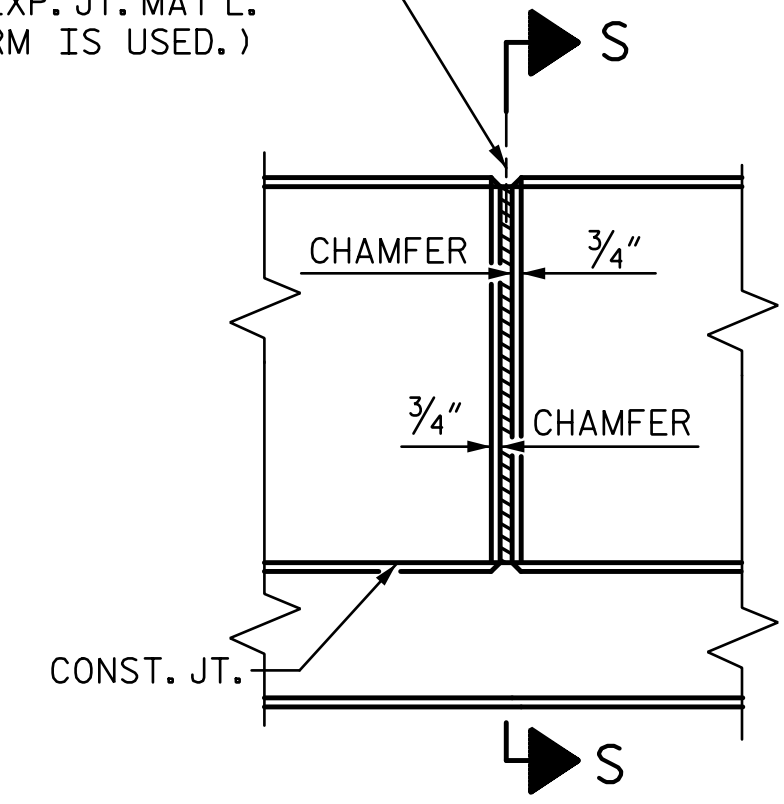
END VIEW

END OF RAIL DETAILS



SIDE VIEW

1/2" EXP. JT. MAT'L HELD IN PLACE WITH GALVANIZED NAILS.
(NOTE: OMIT EXP. JT. MAT'L. WHEN SLIP FORM IS USED.)



ELEVATION AT EXPANSION JOINTS
BARRIER RAIL DETAILS

R:\station\411_031_R2707C_SMU_CBR_S11-16.dgn 12:25:43 PM 3/6/2017

DRAWN BY: MBC	DATE: 9-16	DESIGN ENGINEER OF RECORD: T. LAWS	DATE: 9-16
CHECKED BY: AJP	DATE: 9-16		

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSigned by:
Tony R. Laws, Jr.
3/6/2017

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

CONCRETE BARRIER RAIL

REVISIONS			
NO.	BY:	DATE:	DATE:
1			
2			
3			
4			

SHEET NO. **S11-16**
TOTAL SHEETS **27**